

Responses to USEPA Comments (received August 30, 2012) on RARC Plan Submitted 04/13/12

No.	Section/Title	Comment	Response
1a	General comment	The CPG agreed during the dispute resolution process to remove the word "urban" where it appears in connection with the word "reference" throughout the document. However, instead of removing the word urban entirely, "urban" has been added before the word "background" throughout the revised document. This is inconsistent with the agreement reached during the dispute resolution process.	The additional changes requested per this comment have been incorporated into the report. See responses to subsequent comments.
1b	Section 1.3	In order to address your interest in having the site characterized as urban, and to clarify the definitions of background and reference conditions, please add the following language to the end of the first paragraph of Section 1.3: "USEPA (2002b) defines background as: "Substances or locations that are not influenced by the releases from a site and are usually described as naturally occurring or anthropogenic: (1) Naturally occurring substances are present in the environment in forms that have not been influenced by human activity; (2) Anthropogenic substances are natural and humanmade substances present in the environment as a result of human activities (not specifically related to the CERCLA site in question)." It further defines a background reference area as: "The area where background samples are collected for comparison with samples collected on site. The reference area should have the same physical, chemical, geological, and biological characteristics as the site being investigated, but has not been affected by activities on the site." Based on these definitions, the most appropriate data sets from which to obtain information on background and reference conditions are those that have been collected from areas that have similar characteristics to the environment of the LPRSA, which is an urban estuarine system."	Text has been added to the end of the first paragraph of Section 1.3.
1c	Page 7, Section 1.3.1, 2nd Paragraph, 5th Sentence	The use of the word urban in this sentence is inaccurate, since it is in quotes, and the cited guidance does not contain the word urban. The text is quoting from page 6 of the guidance, second bullet, which states: "The risk characterization should include a discussion of elevated background concentrations of COPCs and their contribution to site risks."	The word "urban" has been deleted from the quoted sentence.
1d	Page 7, Section 1.3.1, 3rd Paragraph	Please rewrite this paragraph as: The LPRSA background evaluation, which will be performed under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) framework, will focus on anthropogenic background given the LPRSA's location within a heavily urbanized and industrial watershed.	Sentence has been revised as requested.
1e	General comment	Remove the word urban throughout the rest of the document. Specific instances of the inappropriate use of the this word occur on page 3 (the instance in the last sentence of the first paragraph on the page, not before the word "development"), pages 6 – 8 (Section 1.3), page 9 (Title of Appendix B), pages 18 – 22 (Table 2-2), page 48 (Table 2-3), page 51, page 56, page 58, page 60, and page 120.	The word "urban" where it occurred before the word "background" has been deleted throughout the document.

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2	Page 11, Section 2.0, Last Bullet	The phrase "from upstream of the LPRSA" should be changed to "from locations described in Appendix B of this RARC."	Sentence has been revised as requested.
3	Page 15, Section 2.1, Problem Formulation-Invertivorous fish population	As per Appendix C, 6.5 and 8.5, both white perch and channel catfish consume finfish as adults and thus could be considered piscivorous for this life stage. Use of only invertebrates in the assessment may underestimate risk to the adults. Receptor dose equations should reflect consumption of invertebrates and finfish for which measured concentrations are available. At a minimum, this should be discussed in the uncertainty section.	The following text has been added following the description of invertivorous fish: "While these fish species are categorized as invertivorous fish, the diet of these species adults includes a portion of fish, as indicated by their life history data (see Appendix C) and the inclusion of fish as a portion of the invertivorous fish diet will be evaluated in the BERA (see Section 2.3.2)." The following text has been added following the description of invertivorous fish: "Although these fish species are categorized as invertivorous, a portion of the diet of adults of these species includes fish (see Appendix C) and the inclusion of fish as a portion of their diet will be evaluated in the BERA (see Section 2.3.2)." Please note that the feeding guilds are the same as those presented in the USEPA-approved Problem Formulation Document (PFD).
4a	Page 24, Section 2.1.4, Eco CSM – Paragraph 1, 2nd sentence	Did the CSM consider what species should be present at the site relative to other estuarine/freshwater systems (e.g., but may not be present due to contamination)?	The second sentence has been revised to state: "The CSM for the LPRSA is based on site-specific information about the species that are typically present at the site or similar urbanized river systems and the potential exposure pathways that may be present." Please note that the CSM reflects the CSM presented in the USEPA-approved PFD.
4b	Page 24, Section 2.1.4, Eco CSM – Paragraph 3, last two sentences	All man-made structures in the river may act as valuable aquatic habitat including those associated with bridges (e.g., pilings, walls, bulkheads, riprap, etc). In addition, mudflats and other surfaces may be preferred habitat for some species at low tide (e.g., shorebirds).	The text has been revised as follows: "The lower reaches of the LPRSA are mostly developed and represent an industrialized shoreline with concrete, metal, or wood bulkhead, devoid of aquatic vegetation. Man-made structures in the river may serve as aquatic habitat, including those associated with bridges (e.g., pilings, walls, bulkheads, and riprap). Although the upper reaches of the LPRSA offer more consistent access to natural habitat for refuge and foraging for many species, preferred habitat available close to the high tide line is often exposed or limited during an ebbing tide. Mudflats and other surfaces may be preferred habitat for some species (e.g., shorebirds) at low tide."
5	Page 39, Equations 2-2 and 2-3	It is unclear why chemical concentrations in prey are expressed as mg/kg wet weight in Equation 2-2 and as mg/kg dry weight in Equation 2-3. Please clarify or adjust, as appropriate.	The chemical concentrations in Equation 2-3 have been revised from dw to ww. Tissue concentrations will be evaluated in wet weight.
6	Section 2.5.1.2, Sediment Quality Triad Approach (Data Analysis)	Please add language to this section indicating that the approach outlined may need to be revised based on the results of the SQT evaluation.	The following sentence was added to the end of the first paragraph in Section 2.5.1.2: "The proposed methods for the SQT evaluation may need to be revised based on the results of the SQT evaluation."

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7	Page 56, Section 2.5.1.2, Sediment Chemistry Data and Benthic Invertebrate Community Structure Data	The use of the term "normalized" should be explained.	Explanation of the term normalized for both sediment chemistry and for benthic community, the word "normalized" has been deleted and replaced with "compared".
8	Page 94, Section 3.3.4.3, Last Paragraph	This sentence should be revised to "The applicability of the wading scenario throughout the LPRSA will be evaluated as part of the risk assessment, as discussed in Section 3.3.5 of this report."	Sentence has been revised as requested.
9a	Page 96, Section 3.3.4.6	The sentence starting "A creel angler survey was conducted..." should start a new paragraph.	A new paragraph has been inserted as requested.
9b	Page 96, Section 3.3.4.6	In addition, contrary to EPA direction, ingestion rates were added after the references to Burger 2002 and Connelly et al. 1992 in this section. EPA understands why the ingestion rates were added, but the appropriate rate to add would be 37 g/day from Burger, not 57 g/day.	Ingestion rate from Burger was changed from 57 g/day to 37g/day.
10	Page 97, Cooking Loss	EPA has reviewed the cooking loss information submitted by the CPG and is prepared to discuss it.	Comment noted.
11	Page 102, Table 3-3	Please revise the Receptor Population/Age Groups listed in this table. They should match those presented in Table 3-4 (there should be a young child wader and an older child boater).	Table has been revised.
12	Page 108, Cooking Loss	Please clarify that alternative values may be used for the CTE only.	Language was revised to state: "As noted in Section 3.3.4.6, alternate values may be used (for the CTE scenarios only), as agreed upon by USEPA and CPG."
13	Appendix B	EPA has several comments on this appendix. However, once the issue of what data should be used to define background and reference conditions is resolved, many of these comments may become irrelevant, and others may need to be adjusted. As has been indicated, EPA is developing a hybrid approach to address this issue, which takes into consideration both the CPG's and the partner agencies positions on it. A meeting will likely be required between EPA, the CPG, and the Partner Agencies in order to come to final resolution on this topic. Additional comments on Appendix B will be submitted after that meeting.	Comment noted. Appendix B will be revised following the receipt of additional USEPA comments.
14	Appendix C	For mummichog, brown bullhead, and mink, the seasonal use indicated on Tables 5-2, 8-1, and 16-1, respectively, should be identified as year-round. Footnotes, similar to the one on Table 10-1 for the smallmouth bass, may be added to each table to explain that none of these species are migratory; they stay in/near the river over the winter.	For mummichog and brown bullhead, the seasonal use has been changed to include all seasons and a footnote has been added to Tables 5-2 and 8-1 accordingly, similar to Table 10-1. For mink, the LPRSA seasonal use has been changed from "summer" to "unknown" consistent with river otter (Table 17-1). There are insufficient data to establish that mink are present year-round in the LPRSA or that mink are only present during the summer (when mink tracks were observed during the avian survey).